Innovation: If you're like a frog, the wrong threats leap to mind

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MANAGING BOOKS

What I Learned From Frogs In Texas
By Jim Carroll
Oblio Press, 121 pages, $24.95

Democratizing Innovation
By Eric Von Hippel
The MIT Press, 204 pages, $37.50

Jim Carroll was speaking at a conference held at a large resort in Houston one time when he noticed a group of frogs enjoying the water in a giant puddle on the roadway.

Periodically, the frogs would spot gulls overhead and scamper off to a nearby culvert for safety.

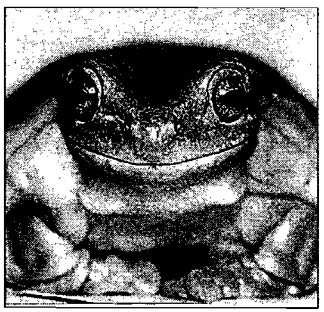
At 4 p.m., when the conference concluded, however, the frogs who had been so alert to the short-term threat from above failed to observe the cavalcade of cars heading in their direction, with predictable, gory consequences.

Mr. Carroll, well known for his books co-written with Rick Broadhead introducing Canadians to the Internet, is now focusing on future trends and innovation. He contends that, like those frogs, too many people are unaware of the changes occurring around them and therefore are fixated on the wrong threats.

To deal with threats, and innovate, it's vital to look beyond the "right now," and a good way to accomplish that is keeping alert to the trends affecting society and business. To help, he offers a list of eight major trends affecting us all:

■ **The impact of ever-growing "sapiential circles:"** Anthropologist Margaret Mead used the term sapiential circles to discuss how groups generate knowledge within their community. These days, we're involved in an increasing number of sapiential circles that, thanks to technology, can span the globe — increasing the overall levels of knowledge available to us.

■ **An increase in what you need to know:** Every day 7,000 scientific and technical articles are published, and every two or three years the general knowledge base doubles, a U.S. institute looking at technology in education estimates. That presents more opportunities for innovation, but requires you to learn faster and think more strategically.



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■ **Rapid scientific advance:** With that knowledge come new scientific discoveries and innovation that transforms our world.

■ **China and changes to human capital:** Chinese, as well as Indian, universities now award more science and technology degrees than do U.S. universities, bringing those graduates into the global innovation pool. "Don't strictly think of China as a market; it is also set to become a massive competitor in every industry, every marketplace and every field of endeavour."

■ **Less resistance to change:** The defining characteristic in the business world for the past 20 years, Mr. Carroll argues, has been resistance to change. But baby boomers are becoming more comfortable with change. And the youngest recruits to business, who grew up in a world of technology, thrive on change.

■ **Changing relationships:** Relationships are changing in the work world, from patients who arm themselves with all sorts of information before meeting their doctor to sales staff expected to partner with customers. We need to adapt to the reconstructed forms of traditional relationships.

■ **A smarter type of object:** Over the next few years, "intelligence" will be embedded through technology into a variety of everyday things. Consumer appliances will become a part of an interconnected, intelligent grid in our homes and offices; smart systems will come into play in home and building design; and routine work processes will continue to be automated.

■ **The skills shortage and the end of retirement:** It will become difficult in the next decade to get the staff and skills necessary to run your business. Retirement will start to happen gradually, with individuals going through a transitional period from full-time employment to full-time retirement.

Building on that, Mr. Carroll explores how to build an innovation culture in your organization, based on the six Cs: curiosity; creativity and rebellion; collaboration; change and opportunity masters who pursue opportunities; courage to take risks and make decisions; and the desire to create excitement every day.

His book is easy to read, bringing together an array of interesting facts and some practical, if not particularly novel, ideas for capitalizing on them through an innovation impetus in your organization.

Mr. Carroll's ideas are based on innovation starting from within, but in *Democratizing Innovation*, Eric Von Hippel, the head of the innovation and entrepreneurship group at the MIT Sloan School of Management, catalogues the increasing tendency for innovation to be led by consumers. They may tweak and twist a product to fit their needs better.

While this kind of innovation is associated in our minds with open-source software, in fact it happens in a variety of fields.

This can range from stressed skin wall panels (insulated building panels with a foam core sandwiched in between), where 82 per cent of innovation came from builders using the material, to sports such as mountain biking, where aficionados improve the bikes and the manufacturers build on those innovations.

His book looks at why users want customized products, why it is more advantageous for them rather than the manufacturer to make the changes, why they freely share their innovations with others, and the need for governments to encourage user innovation by refining patent and intellectual protection legislation.

It's a fascinating, little-explored trend that he covers thoroughly. Although his book is written in academic style, it offers lots of examples and provides an understanding of an important innovation in the world of innovation.

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